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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/784,138

Applicant(s)

SHEDRINSKY, FELIX

Examiner

MINH-CHAU NGUYEN

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. In claim 7, the phrase "the method is performed by **a server**, and further comprises: performing load balancing to select the server from among plural servers" is unclear and vague. Especially, it is very unclear as to what Applicant is intended by "select the server". Which server will be selected from **a server**?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6,8,10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hovell et al. (Hovell) (US 7,116,681B1), and further in view of Niblett et al. (Niblett) (US 6,336,135B1).

4. Claim 1, Hovell teaches a method of transferring data via a communication session between a client application (i.e. host 28 in fig. 1) and a server application (i.e. host 30 in fig. 1), the method comprising:

wherein the client application (i.e. host 28) and the server application (i.e. host 30) run local protocols (i.e. IPv6), and the data is passed between the client application and the server application via an intermediary protocol (i.e. IPv4).

Hovell fails to assigning an identifier to the communication session; creating at least one queue associated with the communication session; and storing data passed between the client application and the server application in the at least one queue, the data being stored using the identifier. However, Niblett, in the same field of endeavor having closely related objectivity, teaches assigning an identifier to the communication session (i.e. gateway program 200 constructs a session, identified by a session identifier which is unique within the gateway, to represent the communication flow between an user's browser 250 and an application program of web server system 230 in fig. 3&4) (Col. 11, L. 27-64; and Col. 12, L. 28-43); creating at least one queue associated with the communication session (i.e. the gateway contains a session table, which implemented as a message queue, is used to associate session identifiers with user's requests and application program responses (i.e. they are represented as a communication session)) (figure 3-5; and Col. 12, L. 47-59); and storing data passed between the client application and the server application in the at least one queue, the data being stored using the identifier (i.e. the gateway adds the

session identifier which associates with the user's requests and application program response (i.e. communication session) into the session table (i.e. it is same as the message queue)) (Col. 11, L. 53-64; and Col. 12, L. 47-59).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Niblett's teachings of assigning an identifier to the communication session; creating at least one queue associated with the communication session; and storing data passed between the client application and the server application in the at least one queue, the data being stored using the identifier, in the teachings of Hovell in packet network interfacing, for the purpose of supporting serializing of interactions between a client system and an application program of a server system.

5. Claim 2, Hovell and Niblett disclose the invention substantially as claimed. Hovell teaches creating a socket interface to at least one of the client application and the server application, the data being transmitted through the socket interface (in fig. 1, the host 28 of the first IPv6 domain 12 is connected the host 30 of the IPv6 domain 14 via a tunneling interface, which between the IPv6 domain and IPv4 domain, such that all packets transmitted from/to the IPv6 through this tunneling interface) (Col. 1, L. 47-53).

6. Claim 3, Hovell and Niblett disclose the invention substantially as claimed. Hovell teaches wherein the client application (i.e. the host 28) and the server application (i.e. the host 30) are on networks that run local protocols (i.e. IPv6), and the method further comprises: converting between the local protocols and the intermediary protocol when passing the data (i.e. converting between the IPv6 and IPv4 when transmitting all packet) (fig. 1&2; and Col. 6, L. 8-Col. 7, L. 50).
7. Claim 4, Hovell and Niblett disclose the invention substantially as claimed. Hovell teaches wherein the local protocol comprises at least one of TCP/IP (i.e. IPv6 is a routing layer datagram service of the TCP/IP suite) (fig. 1) and a serial protocol, the serial protocol comprising one of RS232 and RS485.
8. Claim 5, Hovell and Niblett disclose the invention substantially as claimed. Niblett teaches wherein the intermediary protocol comprises HTTP (Col. 9, L. 5-8; and Col. 11, L. 40-52).
9. Claim 6, Hovell and Niblett disclose the invention substantially as claimed. Niblett teaches wherein the identifier is associated with the at least one queue (Col. 11, L. 53-64; and Col. 12, L. 47-59).

10. Claim 8, Hovell and Niblett disclose the invention substantially as claimed. Niblett teaches wherein the identifier is invalidated when the communication session terminates (Col. 15, L. 25-36).

11. Claim 10, Hovell and Niblett disclose the invention substantially as claimed. Hovell teaches wherein the communication session is effected via a Web site (i.e. it inherits that a web site is provided by the web server) (Col. 11, L. 53-64; and Col. 12, L. 28-43).

12. Claim 11, Hovell and Niblett disclose the invention substantially as claimed. Niblett teaches further comprising maintaining a session record, the session record including an identity of a user initiating the session (i.e. a session record is equivalent to a session identifier information in the session table, which including an user identification information) (Col. 12, L. 47-59).

13. Claim 12, Hovell teaches a system for transferring data via a communication session between a client application (i.e. host 28 in fig. 1) and a server application (i.e. host 30 in fig. 1), the client application running on a first network (i.e. IPv6 domain 12 in fig. 1) and the server application running on a second network (i.e. IPv6 domain 14 in fig. 1), the system comprising:

a proxy (i.e. border router 16A) having a socket (i.e. an ingress interface in Col. 5, L. 62-65) to the client application (i.e. host 28), the proxy converting data between a local protocol (i.e. IPv6) run on the first network (i.e. IPv6 domain 12) to a non-local protocol (i.e. IPv4) (i.e. the router 16A converts the packets between the IPv6 to IPv4) (fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42);

an agent (i.e. border router 16B) that creates a socket (i.e. an ingress interface in Col. 5, L. 65-Col. 6, L. 2) to the server application (i.e. host 30), the agent converting data between a local protocol (i.e. IPv6) run on the second network (i.e. IPv6 domain 14) and the non-local protocol (i.e. IPv4) (i.e. the router 16B converts the packets between the IPv6 to IPv4) (fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42; and L. 55-Col. 7, L. 3); and

a server (i.e. DNS 20) in communication with the proxy (i.e. router 16A) and the agent (i.e. router 16B) (figure 1).

Hovell fails to the server containing a message queue dedicated to the communication session, the message queue for storing data transmitted during the communication session. However, Niblett, in the same field of endeavor having closely related objectivity, teaches the server containing a message queue dedicated to the communication session (i.e. the gateway contains a session table, which implemented as a message queue, is used to associate session identifiers with user's requests and application program responses (i.e. they are represented as a communication session)) (figure 3-5; and Col. 12, L.

47-59), the message queue for storing data transmitted during the communication session (i.e. the gateway adds/stores the session identifier which associates with the user's requests and application program responses (i.e. they are represented as many communication packets in a communication session) into the session table) (Col. 11, L. 53-64; and Col. 12, L. 47-59).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Niblett's teachings of the server containing a message queue dedicated to the communication session, the message queue for storing data transmitted during the communication session, in the teachings of Hovell in packet network interfacing, for the purpose of supporting serializing of interactions between a client system and an application program of a server system.

14. Claim 13, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein the proxy (i.e. router 16A) polls the server (i.e. DNS 20) for data for the client application (i.e. the router 16A extracts the IPv4 address of the 6to4 tunnel endpoint from the DNS 20) (fig. 1&2; and Col. 6, L. 3-7; and Col. 11, L.4-L. 67).

15. Claim 14, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein, when data (i.e. the IPv4 address of the 6to4 tunnel

endpoint) is present for the client application, the proxy (i.e. router 16A) retrieves the data from a table (i.e. an end point table 76A), and transmits the data to the client application (i.e. host 28) (fig. 1&2; and Col. 6, L. 8-Col. 7, L. 3; and Col. 11, L.4-L. 67). Besides this, Niblett teaches retrieving the data from the message queue (Col. 13, L. 17-39).

16. Claim 15, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein the agent (i.e. router 16B) polls the server (i.e. DNS 20) for data for the server application (i.e. the router 16B extracts the IPv4 address of the 6to4 tunnel endpoint from the DNS 20) (fig. 1&2; and Col. 6, L. 3-7; and Col. 9, L. 5-23; and Col. 11, L.4-L. 67).

17. Claim 16, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein, when data (i.e. the IPv4 address of the 6to4 tunnel endpoint) is present for the client application, the agent (i.e. router 16B) retrieves the data from a table (i.e. an end point table 76B), and transmits the data to the server application (i.e. host 30) (fig. 1&2; and Col. 6, L. 8-Col. 7, L. 3; and Col. 9, L. 5-23; and Col. 11, L.4-L. 67). Besides this, Niblett teaches retrieving the data from the message queue (Col. 13, L. 17-39).

18. Claim 18, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein the intermediary protocol (i.e. IPv4) is different from the local protocols (i.e. IPv6) (fig. 1).

19. Claim 19, Hovell and Niblett disclose the invention substantially as claimed.

Hovell teaches wherein the intermediary protocol (i.e. IPv4) is different from the local protocols (i.e. IPv6) (fig. 1).

20. Claim 20, Hovell and Niblett disclose the invention substantially as claimed.

Niblett teaches wherein the intermediary protocol (i.e. HTTP at the Web server) is a same protocol as the local protocols (i.e. HTTP at the web browsers) (Col. 9, L. 57-Col. 10, L. 7).

21. Claim 17 is corresponding machine-readable medium claim of method claim 1.

Therefore, it is rejected under the same rationale.

22. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hovell and Niblett as applied to claim 1 above, and further in view of Colyer (6,023,722).

23. Claim 7, Hovell and Niblett are relied upon for the disclosure set forth in the previous rejection. Hovell teaches wherein a server (i.e. DNS 20) selects the

server (i.e. DNS server 22A) from among plural servers (i.e. DNS server 22A and DNS server 22B) (fig. 1; and Col. 6, L. 3-7).

Hovell and Niblett fail to teach the server performs load balancing. However, Colyer, in the same field of endeavor having closely related objectivity, teaches the server performs load balancing (Col. 3, L. 30-48).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Colyer's teachings of the server performs load balancing, with Niblett's teachings of assigning a session identifier to the communication session, and storing data during the communication session in a queue message, in the teachings of Hovell in packet network interfacing, for the purpose of accomplishing low costs and high performance in the communication sessions.

24. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hovell and Niblett as applied to claim 1 above, and further in view of Blackett et al. (Blackett) (US 2004/0138786A1).

25. Claim 9, Hovell and Niblett and Blackett are relied upon for the disclosure set forth in the previous rejection. Blackett teaches wherein the communication session comprises a tcp/ip session (i.e. which includes IPv6 and IPv4) (fig. 1).

Hovell and Niblett fail to teach a telnet session. However, Blackett, in the same field of endeavor having closely related objectivity, teaches a telnet session (paragraph 41).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Blackett's teachings of a telnet session, with Niblett's teachings of assigning a session identifier to the communication session, and storing data during the communication session in a queue message, in the teachings of Hovell in packet network interfacing, for the purpose of supporting serializing of interactions between a client system and an application program of a server system.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU NGUYEN whose telephone number is (571) 272-4242. The examiner can normally be reached on 7AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JASON CARDONE can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2145

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Minh-Chau Nguyen
Art Unit: 2145



JASON CARDONE
SUPERVISORY PATENT EXAMINER